



# California Regional Water Quality Control Board

## Santa Ana Region



**Terry Tamminen**  
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Environmental  
Protection

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**Arnold Schwarzenegger**  
Governor

March 5, 2004

Mr. Peter Nyquist  
Weston, Benshoof, Rochefort, Rubalcava & MacCuish, LLP  
333 South Hope Street, 16<sup>th</sup> Floor  
Los Angeles, CA 90071

### **REVIEW OF PERCHLORATE INVESTIGATION REPORT, PYRO SPECTACULARS, INC. – 3196 NORTH LOCUST AVENUE, RIALTO, SAN BERNARDINO**

Dear Mr. Nyquist:

We have reviewed the December 15, 2003 submittal entitled "Perchlorate Investigation Report" for Pyro Spectaculars, Inc., 3196 North Locust Avenue, Rialto, California. This investigation report was prepared by your consultant, Kleinfelder, and submitted in response to the requirements of the Investigation Order that I sent to you on October 7, 2002.

The Pyro Spectaculars facility occupies approximately 25 acres of leased land located in the north half of the southwest quarter of Section 21, Township 1 North, Range 5 West, San Bernardino Baseline and Meridian. According to Kleinfelder, the company develops and produces pyrotechnic public display fireworks. The company purchases all of their pyrotechnical shells and stage products from international and domestic vendors and does not manufacture or modify pyrotechnical devices on-site. The facility consists of eleven on-site buildings and four buildings on the adjacent American Promotional Events, Inc. – West lease. Pyro Spectaculars currently leases approximately five acres of additional property, including Storage Bunker B-1, used for the packing of pyrotechnic shells into show boxes. Storage Bunker B-1 is located approximately 0.5-miles south of the Pyro Spectaculars facility.

The purpose of this investigation was to determine whether the development and production of pyrotechnic public display fireworks at the Pyro Spectaculars site and Bunker B-1 might have resulted in the release of perchlorate to the ground surface adjacent to the storage and production areas. A total of three exploratory trenches were excavated at the 25-acre site. Three trenches (PS-T1, PS-T2, and PS-T3) were excavated to a total depth of ten feet below ground surface (bgs). Soil samples were collected from one, five and ten feet bgs. Soil samples were collected from the backhoe bucket using brass-sleeved sampling tubes.

*California Environmental Protection Agency*

One trench (PS-T1) was excavated in the former mortar storage area located in the north-central portion of the Pyro Spectaculars facility. The second trench (PS-T2) was excavated in the current mortar storage area located in the southwest corner of the facility. The third trench (PS-T3) was excavated near storage magazines M-11 and M-12, located in the northwest corner of the facility.

One soil boring (B1-1), located near the entrance to the Bunker B-1 loading dock, was drilled to a total depth of 50 feet bgs, using an air rotary casing hammer drilling rig. According to Kleinfelder, soils generally consisted of light brown, fine to coarse grained sand and gravel, with some occasional silt. Soil samples were collected at ten-foot intervals, beginning at five feet bgs, using a split-spoon sampler lined with brass sleeves.

The samples were analyzed for volatile organic compounds (VOCs), using USEPA Method 8260B, and perchlorate, using USEPA Method 314. Perchlorate was not detected above the laboratory detection limit [0.040 milligrams per kilogram (mg/kg)] in the nine soil samples collected from the three exploratory trenches or in the six soil samples collected from the soil boring. Low concentrations of VOCs, mainly aromatic hydrocarbons, were detected in four of the trench samples. The only analyte detected above the laboratory reporting limit was 1,2,4-trimethylbenzene, at 6.1 micrograms per kilogram ( $\mu\text{g/kg}$ ). Low concentrations (1.6  $\mu\text{g/kg}$  and 1.7  $\mu\text{g/kg}$ ) of trichloroethylene were detected in two soil samples that were collected from the soil boring (B1-1) at 45 and 50 feet bgs, respectively.

In addition to coordinating the field activities at the site, Kleinfelder reviewed historical records consisting of aerial photographs, building permits, property ownership records and other documents. This review focused on information related to past and current site activities, areas of waste disposal or other potential sources or releases of perchlorate, and correlation of these factual records with the existing and historical site features, through use of the aerial photographs. In addition, facility operations, process flow, chemical use and waste streams at the Pyro Spectaculars facility were reviewed to develop additional understanding of process activities that could have resulted in one or more releases of chemicals, including perchlorate. Please note that there is an error in the statement on Page 7 of 23, "In the 1966 aerial photograph, continued expansion of the WCLC site is evident." According to available records, WCLC ceased operations at the 160-acre site in 1957, and the site was sold to B. F. Goodrich in August 1957. Therefore, the statement should be corrected to read "in the 1956 aerial photograph..."

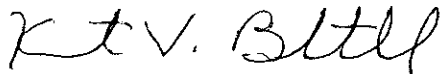
Based on our review of the analytical data for soil samples collected from three trench excavations and one soil boring, we believe that no additional soil investigation by Pyro Spectaculars is necessary at the Pyro Spectaculars or Bunker B-1 sites at this time. Additional investigations by former facility operators and property owners have been scheduled for the upcoming weeks for the parcels in the northern 62 acres, in the

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vicinity of Pyro Spectaculars. Pending the results of these investigations, Board staff may require former and present facility operators and property owners to prepare a work plan for installation of groundwater monitoring wells in specific areas of the site. At that time, Pyro Spectaculars, Inc. and others may be requested to perform the necessary field work or to financially contribute toward the implementation of groundwater investigation or remediation.

If you have any questions, please contact me at (909) 782-3284, or Ann Sturdivant, Chief of our Spills, Leaks, Investigations and Cleanups Section, at (909) 782-4904.

Sincerely,



for Gerard J. Thibeault  
Executive Officer

cc: Jorge Leon, SWRCB, Office of Chief Counsel  
Richard Orr, Kleinfelder  
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Inland Empire Perchlorate Regulatory Task Force (mailing list attached)

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